ORIGINAL ARTICLE

Management and Outcome of Ovarian Pathologies - A prospective study

SUMREEN SHABBIR[1], JABBAR HUSSAIN BILAL[2], ANILA ANSAR[3], TARIQ MAHMOOD REHAN[4], ANSAR LATIF[5], ISHTIAQ AHMAD[6]

[1]*Senior Registrar, Department of Gynaecology & Obstetrics, Khawaja Muhammad Safdar Medical College, Sialkot.*
[2]*MBBS, Khawaja Safdar Medical College, Allama Iqbal Memorial Teaching Hospital, Sialkot.*
[3]*Professor & Head of Gynae Department, Khawaja Safdar Medical College, Sialkot*
[4]*Professor of Surgery, Khawaja Safdar Medical College, Sialkot.*
[5]*Professor & Head of Surgery Department, Khawaja Safdar Medical College, Sialkot*
[6]*Assistant Professor of Surgery, Khawaja Safdar Medical College, Sialkot.*
Correspondence to Dr Anila Ansar, Email: anilaansar2013@gmail.com, cell 03217103994)

ABSTRACT

Aim: To analyze the management and its outcome in women presenting with adnexal mass at Allama Iqbal Memorial Teaching Hospital, Sialkot.
Study design: Prospective Study
Place and duration of study: Department of gynaecology, Govt. Khawaja Muhammad Safdar Medical college, Sialkot from May 2018 to January 2021.
Methods: Patients with Adnexal mass presenting in OPD of department of gynaecology were included in the study duration. Complete history and general physical examination ; radiological investigations like USG, CT scan abdomen and pelvis and serum tumour markers was done. Risk malignancy index on ultrasonograghy findings was assessed for all patients and management plan made. The treatment of the patient as per their stage of disease at its presentation; either admitted or out patients was done and data recorded. Formal written consent for inclusion in the study was taken. Patients not giving consent for inclusion in the study were excluded similarly patients not completing follow up for 3 months in postoperative period were excluded from the data. Patients were distributed in two groups Group -A premenopausal and Group -B postmenopausal. The data was entered and analyzed using SPSS v 23.
Results: Patients with ovarian mass admitted in hospital are 245(23.99%) and those managed in opd are 776(76.00%), patients referred to oncologist without surgical treatment is 40(3.91%) while those referred for adjuvant therapy is 23(2.25%). Age group is 18-61. Group A is premenopausal and includes 815(79.82%) patients while group B is postmenopausal and comprises of 206(20.17%) patients. Tumour marker CA-125 was performed in 876(85.79%) patients. Patients presenting with simple cyst in group A are 414(50.79%) and in group B are 61(29.61%) while patients presenting with complex cysts are 175(21.47%) in group A and 42(20.38%) in group B.
Conclusion: The majority of ovarian masses turn out to be benign however therein increased frequency of malignant tumours as the age increases. The management of advanced ovarian cancer is tedious and have unpredictable prognosis depending upon the stage of presentation.
Keywords: Ovarian masses, ovarian cysts, benign, malignant, cytoreductive surgery.

INTRODUCTION

The adnexal masses is synonymous with ovarian masses; tumours of ovary may be benign or malignant but both these entities present as a mass in pelvic region. This a challenging task to have a clear cut diagnosis of being Benign or malignant which is the key factor in management of these masses. Benign ovarian tumours include functional ovarian cyst, inflammatory ovarian cyst, germ cell tumours, epithelial and sex cord stromal tumours. Benign ovarian tumours mostly present in young girls, adolescents and women in their reproductive age except for benign epithelial tumours whose frequency increases with age and is more prevalent in older and postmenopausal women[1,2].

The cancers of ovary are graded as second commonest malignancy in the gynaecological tumours.

These tumours can have very favourable outcome or prognosis when these are diagnosed at initial stages. The gloomy fact is that such tumours are not diagnosed at initial stages as these present when these have well grown and already gone in advanced stages where curability is difficult[3]. In presentations, these cancers become symptomatic in later stages furthermore the symptoms mingle up with symptoms which are related to gastrointestinal tract and the patients keep on seeking treatment of minor ailments while the gravity keeps on increasing. When the situation is revealed already it is late and the disease has attained advanced status with spread to extra ovarian tissues. The ovarian cancers are especially suspected in ladies having BRCA1 and BRCA2 mutations and also lynch syndrome is documented with increases life time chance of having cancers of ovary[4,5].

Hereditary cancers usually present 10 years before sporadic cancers and are associated with other cancers particularly of breast, colon and rectum. There are different studies which has presented the data of population having Early Menarche- (women having menarche at less than 12 years of age); similarly late cessation of menses i.e., women having menopause at more than 50 years age, both these groups are at increased risk as compared to general population reason being having more numbers of

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ovulatory cycles. These women are having risk of developing carcinoma of ovary multiplied by 1.1 to 1.5 and 1.4 to 4.6 respectively. Other factors like breast feeding, repeated pregnancies and practicing contraceptive with oral methods are found protective for these cancers as all these factors suppress ovulation. There are studies which collected data and tried to establish relation between presence of endometriosis and cancers of ovary but no certain link could be established with confidence and uncertain mechanisms may be working[6,7,8].

Importance of genetic factor has been an established fact. Almost 10-15% patients with ovarian cancers have definite genetic predisposition. And the commonest relation of hereditary cancers are with BRCA1 and BRCA2[9].

Lynch syndrome is hereditary non polyposis colorectal cancer (HNPCC) and is associated with endometrial cancer and increased lifetime risk of ovarian cancer. Several reproductive and hormonal factors lower the risk including multiparity, oral contraceptive use, lactation, tubal ligation and salpingectomy while others such as nulliparity, old age at menopause, intrauterine devices, endometriosis, obesity and cigarette smoking are associated with increased risk[10,11].

Prevention of primary ovarian cancer has been a drive in which modification of risk factors and encouragement of factors having protective role : collection of data in such epidemiological studies has shown that the incidence of ovarian cancers could not be reduced up to a significant level. Recently another method has been adopted for the prevention of ovarian cancers. It was prophylactic salpingectomy which was considered quite effective for ovarian cancer prevention. The mortality related to ovarian cancers is ranked at number five in female mortalities due to malignancy[12].

The appropriate and adequate treatment of early ovarian cancers includes resection of the primary tumour and removal of all mass that is visible macroscopically and then complete and meticulous examination of abdominal viscera for staging point of view. Chemotherapy for ovarian cancer patients is usually Platinum based[13].

For women with advanced ovarian cancer, the prognosis largely depends on the extent of tumor mass reduction on initial surgery. Complete resection confers significantly longer survival (median 5 years) than incomplete resection. After surgery, the standard adjuvant chemotherapy consists of a combination of carboplatin and paclitaxel[14]. No study in this topic has been conducted in Sialkot region so we wanted to collect the data of ovarian masses and its management and final outcome.

PATIENTS AND METHODS

From May 2018 to January 2021, Patients with Adnexal mass presenting in OPD of department of gynaecology were included in the study duration. Complete history and general physical examination; radiological investigations like USG, CT scan abdomen and pelvis and serum tumour markers was done. Risk malignancy index on ultrasonograghy findings was assessed for all patients and management plan made. The treatment of the patient as per their stage of disease at its presentation; either admitted or out patients was done and data recorded. Formal written consent for inclusion in the study was taken. A proforma was maintained to record the data. Patients not giving consent for inclusion in the study were excluded similarly patients not completing follow up for 3 months in postoperative period were excluded from the data. Patients were distributed in two groups Group -A premenopausal and Group -B postmenopausal. The data was entered and analyzed using SPSS v 23.

RESULTS

Total number of patients presented in 3 years are 1133 and those who lost follow up are 112. Patients included in the study are 1021. Table III shows surgical procedures. A total of 450 surgical procedures were done; the differential and percentages of all procedures in the two groups. Table IV shows outcome of operated cases, mortality in premenopausal group is 1.10% and in postmenopausal 2.24%.

Table I- Study in brief

Total no of patients	1133	
Patients lost to follow up	112	
Patients included in the study	1021	100%
Patients of Ovarian masses admitted	245	23.99%
Patients managed in OPD	776	76.00%
Referred to oncologist (without surgical treatment)	40	3.91%
Referred to oncologist (for adjuvant therapy)	23	2.25%
Age	18-61	31±6.87 yrs
Premenopausal (Group I)	815	79.82%
Postmenopausal (Group-II)	206	20.17%
Tumour markers (CA-125)	876	85.79%

Table II- Final diagnosis

	Group A n=815	**Group B n=206**
Simple cysts	414(50.79%)	61(29.61%)
Complex cysts	175(21.47%)	42(20.38%)
Masses with Benign features	68(8.34%)	31(15.04%)
Masses with malignant features	58(7.11%)	31(15.04%)
Masses with mixed features	49(6.01%)	20(9.70%)
Definitive malignant on USG	36(4.41%)	14(6.79%)
Biopsy proven malignant	15(1.84%)	7(3.39%)

Table III: Surgical procedures

	Group A(n=361)	**Group B(n=89)**
Cystectomy only	321(88.91%)	64(71.91%)
Oophorectomy	31(8.58%)	18(20.22%)
Staging laparotomy	9(2.49%)	7(7.86%)

Table IV: Outcome/ morbidity

	Group A n=361	**Group B n= 89**
OPD patients (follow up) no complications	297(82.23%)	70(79.13%)
Referred to oncologist/ adjuvant chemotherapy	35(9.48%)	8(9.35%)
Surgical site infections	14(3.89%)	6(6.47%)
Recurrence of cyst/ masses	11(3.16%)	3(3.37%)
Mortality	4(1.10%)	2(2.24%)

DISCUSSION

In the this study , incidence of adnexal masses or ovarian tumours with benign features in premenopausal group is 8.34% and that of ovarian masses with malignant features is 7.11%. In postmenopausal group, incidence of adnexal masses with benign features is 15.04% and that with malignant features is 15.04%. The study conducted by Shardha et al[15], shows incidence of ovarian masses 6.9% and ovarian neoplasms 4.7% which is in consistent with our study and shows that benign ovarian masses are more common then malignant ovarian mass. Present study shows that ovarian masses either benign, malignant or mixed, all are more common in postmenopausal group. European study conducted by Poole J et al[16], show that the Age specific incidence rates rise sharply from around 40 to 44 years, peaking among women in their 70s and 80s. The number of cases is highest among women in their 60s and 70s, accounting for almost half the diagnosis. Thus the increasing trend of ovarian neoplasms in younger age group in our population is noted. Incidence of benign masses in present study in both group 1 and 2 is 28.3%, while incidence of malignant masses and masses with mixed features is 23.01% and 15.07 respectively. These findings are comparable with the study conducted by Pilli et al[17], and Jha et al[18].

CONCLUSION

The majority of ovarian masses turn out to be benign however therein increased frequency of malignant tumours as the age increases. The management of advanced ovarian cancer is tedious and have unpredictable prognosis depending upon the stage of presentation.

Conflict of Interests:: Nil
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